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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/009,696

11/06/2001

John Eric Arnold

DN1999111USA

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04/11/2006

THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
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AKRON, OH 44316-0001

EXAMINER

NGUYEN, XUAN LAN T

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 04/11/2006

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/009,696
Filing Date: November 06, 2001
Appellant(s): ARNOLD ET AL.

MAILED

APR 11 2006

GROUP 3600

Nancy T. Krawczyk
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/30/06 appealing from the Office action
mailed 9/02/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

GROUND OF REJECTION NOT ON REVIEW

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The following grounds of rejection have not been withdrawn by the examiner, but they are not under review on appeal because they have not been presented for review in the appellant's brief.

- The obviousness rejection of claims 6 and 14.
- The obviousness rejection of claims 8 and 9.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,201,500	ECKTMAN ET AL.	4-1993
4,890,823	KOSCHINAT ET AL.	1-1990

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims: the rejection has been presented in the Office Action dated 9/2/05 and is repeated below for the Board's convenience.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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2. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 12 should be --An airspring (10) in accordance with claim 17 wherein the retainer comprising **said** support ribs has more than two concentrically disposed ribs.--; since the support ribs have been claimed in claim 17.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7, 12 and 16-19 are rejected under 35 U.S.C. 102(b) as anticipated by Ecktmann et al. (USP 5,201,500).

Re: claim 1, Ecktmann et al. show an airspring, as in the present invention, comprising: a flexible cylindrical sleeve 10 secured at opposing ends, and first 2 and second 12, 20 retainers, the sleeve being secured at a first end to one of the retainers, and at the opposing end to other retainer as shown, the improvement being characterized by: one of the retainers 12, 20 having a bumper-contact surface, please see the marked up figure below, within the sleeve 10 for axial movement into the sleeve, the bumper-contact surface formed as a part of the retainer 12, 20 and which contacts the other retainer when the air spring is collapsed, and absorbs and transmits

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forces generated from such contact, the bumper contact surface being centrally located on the surface of the retainer which extends into the sleeve during axial movement into the sleeve.

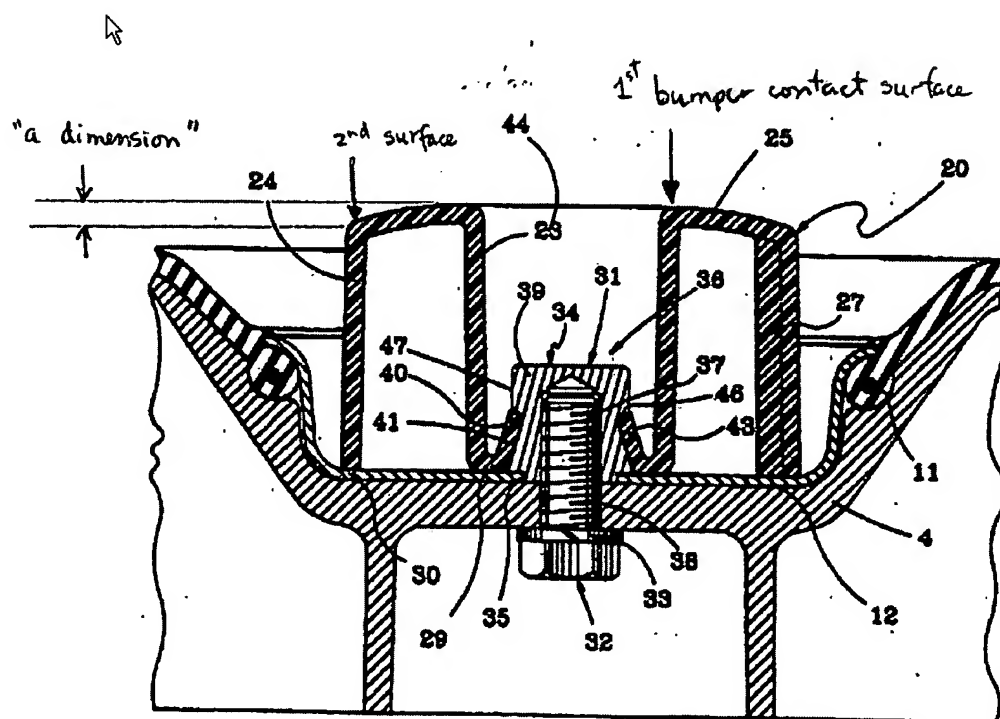


FIG. 4

Re: claims 2, 3 and 4, Ecktmann shows support ribs 43, 26, 27, 29, 30 wherein said ribs are substantially radially extending; and are a series of concentrically disposed.

Re: claim 5, Ecktman shows the first contact surface to be closer to the center corresponds to rib 29, the second contact surface to be further out corresponds to rib 30 and are separated by a dimension, please see the marked up figure above.

Re: claim 7, Ecktman shows piston 3, flexible sleeve 10 and bead rings 13 and 11.

Re: claim 16, Ecktman et al. show an airspring, as in the present invention, comprising: a flexible sleeve 10 secured at opposing ends, a chamber 15 created by the secured sleeve, a piston 3, and first 2 and second 12, 20 retainers, the sleeve 10 being secured at a first end to one of the retainers 2, and an opposing end of the sleeve being secured between the piston 3 and the other retainer 12, 20, wherein: one of the retainers 12, 20 has a centrally located axially outer surface, please see marked up figure above, the axially outer surface extends into the chamber during axial movement, wherein the axially outer surface of the retainer 12, 20 contacts the other retainer 2 when the air spring is collapsed.

Re: claim 17, Ecktman shows the retainer 12, 20 extends into the chamber 15 and ribs 43, 29, 30.

Re: claim 12, Ecktman shows two concentrically disposed ribs 30, 29.

Re: claim 18, Ecktman shows the retainer 12, 20 extends into the chamber 15 and the axially outer surface to be closer to the center corresponds to rib 29, a separate axially outer surface to be further out corresponds to rib 30 and are separated by a dimension, see marked up figure above.

Re: claim 19, Ecktman shows the axially outer contact surface to be closer to the center corresponds to rib 29.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ecktman et al.

Re: claims 6 and 14, Ecktman's air spring, as rejected in claims 1 and 18 above, lacks the separation dimension, as claimed. The Examiner takes an Official Notice that this is a design choice in order to absorb the impact gradually, the separation dimension can be designed in different height ratios depending on each application. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed Ecktman's air spring with a separation dimension between 20% to 80% of the retainer height in order to satisfy a required damping capability gradually.

Re: claim 20, Ecktman's air spring, as rejected in claim 16 above, lacks the "no separately formed and applied bumper". It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ecktman's air spring to comprise a retainer with no separately formed and applied bumper, since it has been held that forming in one piece an article which has formerly been formed in two pieces

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and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ecktmann et al. in view of Koschinat et al. (USP 4,890,823).

Ecktmann's airspring, as discussed in the rejection of claim 1 above, is silent of a material being used in the construction of the second retainer. Koschinat et al. teach the concept of using a glass fiber-reinforced plastic material in the construction of retainer 1, column 2, lines 7-18 to lighten the weight of the retainer as well as providing a non-corrosive retainer that could withstand the force of contact from the upper retainer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a glass fiber-reinforced plastic material such as taught by Koschinat in the construction of Ecktmann's retainer in order to lighten the weight of the retainer as well as providing a non-corrosive retainer that could withstand the force of contact from the upper retainer. Regarding the claimed tensile and flex strengths in claim 8, these are considered design choices and would have been different to each airspring depending on the vehicle that the airspring is being designed.

(10) Response to Argument

Rejection of claim 12 as indefinite:

The Examiner maintains that claim 12 is indefinite for failing to properly point out the claimed support ribs since the support ribs have been claimed in claim 17 which claim 12 depends from, the term "said" would properly point out that the claimed support

ribs are in fact the same as the support ribs claimed in claim 17. With regards to the verb tense "which have", Appellant's argument has been found persuasive, the rejection is withdrawn as shown above.

Rejection of claims 1-5, 7, 12 and 16-19:

Appellant argues that Ecktman's bumper contact surface is not formed as a part of the retainer. Appellant provides support for this argument by giving examples of the term "formed" to be "cast, molded, formed or made as a single piece". The followings are definitions of "form" as a verb and "formed" as an adjective provided by Merriam-Webster Online Dictionary. Note that the 6b definition of the verb "form" is "to combine to make". The definition of the adjective "formed" would not be applicable for the instant invention since it involves living matter. Since the definition provides for a combination to make; element 20 and element 12 of Ecktman are combined to make a retainer to meet the claimed retainer 26 of Appellant. As combined, the bumper contact surface of Ecktman, as marked in figure 4 above is a part of the combined retainer.

Appellant further argues that Ecktman's element 12 does not enter the air chamber 15 and would not contact the other retainer 2 as claimed. Claims 1 and 16 claim a bumper contact surface to contact the other retainer. As shown clearly by Ecktman and as marked above, Ecktman's bumper contact surface is to contact the other retainer 2 to absorb the shock. Element 12 of Ecktman would not contact retainer 2 since it does not perform the function of absorbing shock. It is further noted in figure 2 of Ecktman that the bottom portion of sleeve 10 which encloses the air chamber 15 is


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lower than the element 12. Hence, as shown element 12 has entered the air chamber
15.

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Thesaurus
form
2 entries found for **formed**.
To select an entry, click on it.
form[2,verb]
formed
Main Entry: ²form
Function: *verb*
transitive senses
1 **a** : to give a particular shape to : shape or mold into a certain state or after a particular model <form the dough into a ball> <a state *formed* along republican lines> **b** : to arrange themselves in <the dancers *formed* a line> **c** : to model by instruction and discipline <a mind *formed* by classical education>
2 : to give form or shape to : **FASHION, CONSTRUCT**
3 : to serve to make up or constitute : be an essential or basic element of
4 : **DEVELOP, ACQUIRE** <form a habit>
5 : to arrange in order : **DRAW UP**
6 **a** : to assume an inflection so as to produce (as a tense) <*forms* the past in *-ed*>
b : to combine to make (a compound word)
intransitive senses
1 : to become formed or shaped
2 : to take form : come into existence : **ARISE**
3 : to take on a definite form, shape, or arrangement
- **form·abil·ity** *n* /'for-m&- 'bi-l&-tE/
noun
- **form·able** *n* /'for-m&-b&l/ *adjective*
- **form on** : to take up a formation next to

Merriam-Webster Online
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The screenshot shows the Merriam-Webster Online Dictionary interface. On the left is a navigation menu with links to HOME, PREMIUM SERVICES (including M-W Collegiate.com, M-W Unabridged.com, Britannica.com, and Multi-User Licenses), DOWNLOADS, WORD OF THE DAY, WORD GAMES, WORD FOR THE WISE, ONLINE STORE, and HELP. Below the menu is a link to Merriam-Webster Inc. Company information. The main content area is titled 'Merriam-Webster Online Dictionary' and 'Thesaurus'. The word 'formed' is displayed in large text. Below it, it states '2 entries found for formed. To select an entry, click on it.' A search box contains 'form[2,verb]' and 'formed', with a 'Go' button. The definition for 'formed' is provided: 'Main Entry: **formed** Pronunciation: 'formd Function: *adjective* : organized in a way characteristic of living matter <mitochondria are *formed* bodies of the cell>'. On the right side, there is a 'Merriam-Webster Online' header, a 'Dictionary' and 'Thesaurus' toggle, a search box with a 'Go' button, a 'Browse by letter' section with an alphabet grid (A-Z), a 'Browse words next to: formed' section, and a 'Babylon-Pro' logo at the bottom.

The rejection of claim 20:

Appellant argues that the 103 rejection of claim 20 is contradictory to the 102 rejection of claim 16 because of the recognition of the bumper and the retainer of Ecktmann to be two separate elements. Ecktmann's elements 12 and 20 have been recognized as two separate elements in both the 102 and 103 rejections as stated in the Response to Arguments in the Office Action dated 9/2/05. It is maintained that Ecktmann's retainer 12, 20 meets the claimed retainer in claims 1 and 16 because claims 1 and 16 do not specify the claimed retainer to be one piece and molded together as argued but not claimed by Appellant. Appellant further argues that it is not obvious to

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combine the two elements 12 and 20 into a one piece bumper retainer. It is noted that the last three lines of page 5 to the first three lines of page 6 of the Brief filed on 1/31/06, where Appellant states: *Appellants have determined that the lower retainer can be constructed and formed in such a manner that the inventive retainer has two functions: to retain the sleeve edges and to act as a bumper during airspring compression; replacing two conventional separately formed elements - thereby simplifying construction of an airspring. Ecktmann et al teaches that these functions are performed by two separate elements, and fails to teach or appreciate a single element performing both functions.* Based on this statement, it is believed that Appellant admits that the one piece inventive retainer 26 is replacing a two piece retainer 12, 20 of Ecktmann to serve the same functions. It is maintained that it is obvious and it involves only routine skill to make one piece of a two piece article serving the same functions.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

 4/5/06
Lan Nguyen

Primary Examiner, AU 3683

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Pam Rodriguez



Lan Nguyen

